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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

May 9, 1996

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Program Management

Reply To
Attn Of: ECL-113

Ms. Lisa Green, Manager
Environmental Restoration Program
U. S. Department of Energy
Idaho Operations Office
850 Energy Drive
Idaho Falls, Idaho 83401-1563

Re: Preliminary Scoping Track 2 Summary Report for Central Facilities Area Operable Unit 4-05

Dear Ms. Green:

The U.S. Environmental Protection Agency (EPA) has completed review of the Preliminary Scoping Track 2 Summary Report for Central Facilities Area Operable Unit 4-05 (Track 2 Summary Report). This document was received by EPA on May 2, 1996.

With this letter, EPA recommends that risks associated with arsenic, mercury, nitrate, PCBs and U-238 at CFA-04 be further evaluated in the Waste Area Group 4 (WAG 4) comprehensive remedial investigation/feasibility study (RI/FS). EPA suggests that the terphenyl site at CFA-17 be evaluated for a potential removal action, and concurs with the Track 2 Summary Report recommendation that CFA-50 does not require action. A summary of EPA's rationale for these recommendations is attached.

If you have any questions please contact me at (206) 553-6903.

Sincerely,

Howard Orlean

Howard Orlean
WAG-4 Manager

cc: w/attachment
Alan Dudziak, DOE-ID
Shawn Rosenberger, IDHW-DEQ (Idaho Falls)
Dave Hovland, IDHW-DEQ (Boise)
Wayne Pierre, ECL-113

Background:

OU 4-05 consists of three sites: CFA-04 (the CFA-674 dry pond), CFA-17 (the Fire Department Training Area), and CFA-50 (a shallow injection well next to former building CFA-654).

CFA-04 is the site of a dry pond formerly used for disposal from operations at building CFA-674. From 1953 to 1969, CFA-674 contained a chemical engineering laboratory (CEL) which supported the developing and testing of a nuclear waste calcining process. Test runs of the calcining process were performed in the laboratory using simulated nuclear fuel rods that contained no fissile materials. Liquid and solid wastes from these tests were disposed in the CFA-04 pond. The pond is a shallow depression approximately 150 ft wide by 495 ft long by 9 ft deep. In addition to wastes from the CEL, construction rubble, primarily asbestos-containing roofing material was also disposed in the pond over the years. The CFA-674 building is now a warehouse and contains a photography laboratory. A removal action was performed at the pond in 1994 primarily to remove material containing mercury above risk-based levels. Approximately 7,695 cubic feet of material was removed.

CFA-17 consists of an old leaching pond, the area around an asphalt fire fighting training pad, and the area around a drafting pit. The fire fighting training area was constructed in the early 1960s and is still in use. The site originally consisted of a gravel pad with a large and small burn pit, which was surrounded by a berm. Water used to extinguish the fires was allowed to seep into the gravel or drain off the pad into a borrow pit. The wastewater produced during the exercises contained unburned fuel and products of combustion. In 1987, the facility was upgraded. A large quantity of contaminated soil in the leach pond and area surrounding the gravel pad was excavated and removed. A pile of terphenyl is located approximately 60 feet east of the asphalt training pad in an area approximately 10 square feet. This terphenyl pile has been redesignated as CFA-47 but was characterized as part of CFA-17. The drafting pit was used to test pumps on the fire trucks. In 1971, the drafting pit was used once to dispose of excess sodium-potassium (NaK) by reacting the NaK with an aqueous solution of sodium and potassium hydroxide. The subsequent exothermic reaction caused the aqueous solution to boil over and pond on the ground around the pit.

CFA-50 was a shallow injection well (SIW) 2 ft wide by 4 ft deep located east of where building CFA-654 was located. The building housed maintenance operations from 1944 until its demolition in 1994. It is not known if anything was discharged to the SIW. The

SIW was removed in 1995 as part of a removal action. Soil samples were taken from around the SIW after the removal and were evaluated as part of the Track 2 investigation.

Risk Characterization:

Contaminants of potential concern (COPCs) in surface and subsurface soil at CFA-04 include metals, PCBs and radionuclides. The qualitative risks at CFA-04 due to arsenic, mercury, nitrate, polychorinated biphenyls (PCBs) and U-238 under a 30-year residential scenario indicate potential unacceptable risk to human health. In addition, arsenic, PCBs and U-238 may pose an unacceptable risk to human health for the current occupational scenario. The maximum risk due to the PCBs and metals is from the soil and ground-water ingestion pathways. The maximum risk due to U-238 is from the external exposure pathway.

COPCs in surface and subsurface soil at CFA-17 include, volatile organic compounds, polyaromatic hydrocarbons (PAHs), and metals. The qualitative risks at the terphenyl site due to PAHs under current occupational and 30-year residential scenarios indicate potential unacceptable risk to human health. The maximum potential risk is from the soil ingestion pathway. All other COPCs throughout the CFA-17 area are within acceptable risk levels.

COPCs in surface and subsurface soil at CFA-50 include calcium, lead, and selenium. The calculated non-cancer hazard quotients (HQs) for all COPCs were below 1. There are no complete exposure pathways at CFA-50.

Assessment:

Based on information presented in this Track 2 assessment, EPA recommends that risks associated with arsenic, mercury, nitrate, PCBs and U-238 at CFA-04 be further evaluated in the Comprehensive RI/FS.

Since the terphenyl site at CFA-17 has been redesignated as an additional site (CFA-47), and CFA-47 is very small (10 square feet), EPA recommends that this site be evaluated for a potential removal action. EPA agrees that the remainder of CFA-17 be designated as a no further action site.

EPA agrees with the Track 2 assessment at CFA-50, and concurs with the Track 2 Summary Report recommendation that CFA-50 does not require action.